

Conservation Crop Rotation

Tennessee Conservation Practice Job Sheet

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Definition

Conservation Crop Rotation is the growing of crops in a recurring sequence on the same field.

Purpose

This practice is applied as part of a conservation management system. Its purposes include reducing soil erosion by water and maintaining or improving soil organic matter content. Conservation Crop Rotation may also be used to manage the balance of plant nutrients, improve water use efficiency, and manage plant pests. Other purposes include providing food for domestic livestock and food and cover for wildlife.

Where Used

This practice applies to all land where crops are grown, except pastureland, hayland, or other land uses where crops are grown occasionally only to facilitate renovation or reestablishment of perennial vegetation.

Operation and Maintenance

Rotations shall provide for acceptable substitute crops in case of crop failure or shift in planting intentions for weather related or economic reasons. Acceptable substitutes are crops having similar properties that meet the criteria for all the resource concerns identified for the field or treatment unit

Considerations

When used in combination with Practice 585 (Stripcropping), the crop sequence should be consistent with the stripcropping design.

When used in combination with Residue Management practices, use of high residue crops and cover crops and adjustment of plant population and row spacing can enhance production of the type, amount, and distribution of residue required. Reduced tillage practices utilizing animal wastes or applying mulches will help maintain or improve organic matter.

Selecting deep-rooted crops or cover crops in the rotation can help recover or remove the nutrient or contaminant from the soil profile. Herbicide applications, where used, should be carefully planned to avoid negative impacts on the following crop.

Soil moisture can be conserved for crop use by maintaining crop residues on the surface or by trapping snow with standing residue, windbreaks, or other barriers.

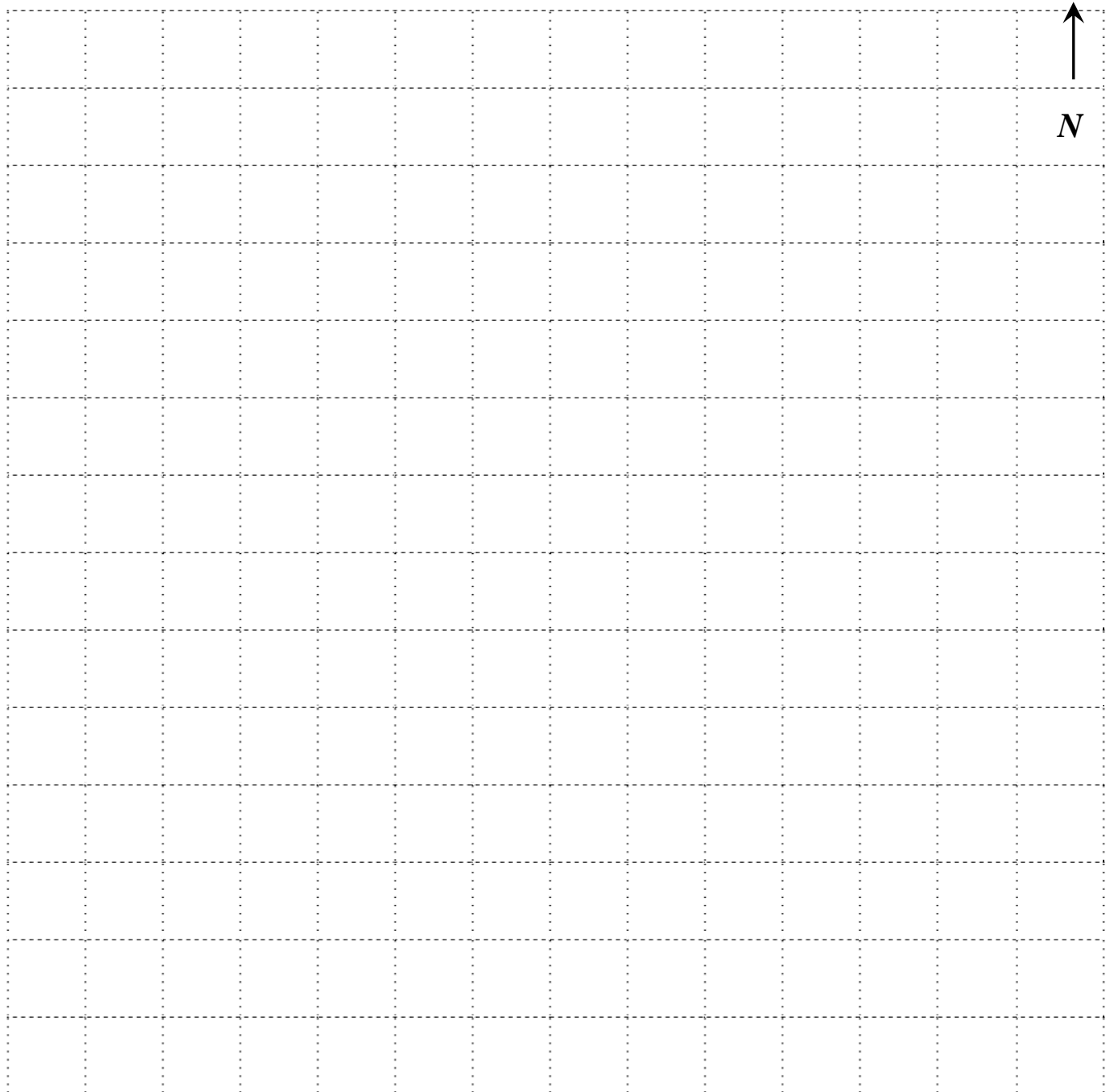
Deep-rooted crops incorporated into the rotation can help utilize all available water in the soil profile and penetrate compacted soil layers.

Unharvested crop rows and residues can provide overwintering wildlife with valuable food and cover. Careful consideration should be given to pesticide use if applied to crops raised for wildlife.

Care should be taken, especially during site preparation and maintenance, to avoid adverse effects to significant cultural resources. Follow NRCS State policy for considering cultural resources during planning and maintenance

If needed, an aerial or side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1" = ft. (NA indicates sketch not to scale: grid size = 1/2" by 1/2")



<i>For:</i>	<i>Farm No.:</i>
<i>Field(s):</i>	<i>Tract No.:</i>
<i>Designed By:</i>	<i>Approved By:</i>
<i>Date:</i>	<i>Signature:</i>
	<i>Date:</i>

Purpose (check all that apply)	
Reduce sheet and rill erosion.	Improve water use efficiency.
Reduce irrigation induced erosion.	Manage plant pests (weeds, insects, and diseases).
Reduce soil erosion from wind.	Provide food for domestic livestock.
Maintain or improve soil organic matter content.	Provide food and cover for wildlife.
Manage the balance of plant nutrients.	Other.

General Specifications

- Crops shall be grown in a planned recurring (rotation), unless a suitable substitution crop is used.
- Use crops and varieties adapted for your soils and region.
- Cover crops may be grazed as long as enough biomass remains for the intended purpose(s).
- A conservation crop rotation may include crops planted for cover or nutrient enhancement.

Rotation Schedule and Documentation

Year in Rotation	Crop (s)	Additional Notes: Seeding Date/Rate, Tillage, Soil Amendments, Etc.
1		
2		
3		
4		
5		
6		

Operation and Maintenance: Report any change in crops or sequence, including reasons for change.**Additional Specifications and Notes:**

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